

I. DESCRIPTION OF A NEW SPECIES OF
ISOPODA OF THE GENUS *SYNI-*
DOTEA, HARGER, FROM THE
GULF OF MANNAR.

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(Plate I).

Dr. Annandale has kindly submitted to me for examination and report, a small collection of Isopoda belonging to the family Idoteidae, from the Indian Museum collection.

As yet very little is known of the members of this family from the Indian Ocean, and although the different genera and species find their greatest development in the colder seas, there is every reason to suppose that there are many genera and species awaiting discovery in the Indian Ocean.

The present collection contains a single new species referable to the genus *Synidotea*, Harger, from coral reefs at Kilakarai, Gulf of Mannar.

The genus *Synidotea* was constituted by Harger¹ in 1878 for a group of Isopoda characterized by the following features:—a multiarticulate flagellum of the antennae, a 3-jointed palp on the maxillipedes, the absence of coxal plates on the dorsal side of the mesosomatic segments, a single metasomatic segment, and uropoda with an endopodite only.

Miers² regarded the genus, as known to him, as synonymous with *Edotia*, Guérin-Mén., but although these two genera, at first sight, appear very similar, they are quite distinct from one another.

In all there are some sixteen or seventeen species belonging to this genus, but the detailed structure of very few of them has been described and figured. Miss Richardson³ has given figures of the maxillipedes of some species, but unfortunately these are incorrect in many cases.

The species here described is the first, I believe, that has been collected in Indian waters, the remaining species being distributed as follows:—

1. *S. hirtipes* (Milne-Edw.). Cape of Good Hope, South Africa.
2. *S. hirtipes* var. *laevidorsalis* (Miers). Jatiyama Bay, Japan.

¹ *Amer. Journ. Sci.*, (Ser. 3), vol. XV, p. 374 (1878).

² *Journ. Linn. Soc. Lond.*, vol. XVI, p. 65 (1881).

³ *Bull. U.S. Nat. Mus.*, no. 54, pp. 376-393 (1905).

3. *S. pallida*, Benedict. Choukof Island, Alaska.
4. *S. erosa*, Benedict. Sannakh Island, Alaska.
5. *S. nebulosa*, Benedict. Bering Sea, Alaska, etc.
6. *S. angulata*, Benedict. Off Cape Johnson, Washington.
7. *S. bicuspidata* (Owen). Alaska, Bering Sea and Kara Sea.
8. *S. marmorata* (Packard). Labrador.
9. *S. laticauda*, Benedict. San Francisco Bay.
10. *S. harfordi*, Benedict. California.
11. *S. nodulosa* (Kröyer). Arctic Seas and Pacific Coast as far as British Columbia.
12. *S. laevis*, Benedict. Alaska and Bering Sea.
13. *S. consolidata* (Stimpson). Pacific Grove, California.
14. *S. muricata* (Harford). Arctic Ocean.
15. *S. picta*, Benedict. Alaska and Bering Straits.
16. *S. ritleri*, Richardson. San Francisco, California.
17. *S. setifer*, Barnard. South Africa.

Synidotea variegata, n. sp.

(Pl. I, figs. 1-10).

Body oblong-ovate, female rather wider than the male, dorsal surface convex, almost smooth. Cephalon (fig. 1) wider than long, narrowing posteriorly, frontal margin straight, posteriorly there is a deep transverse furrow. Eyes large and oval, situated in the middle of the extreme lateral margins. Antennulae (fig. 2) with the first joint expanded, second and third short and wide, subequal; flagellum nearly two and a half times the length of the last peduncular joint, setae in bunches. Antennae (fig. 3) first and second joints subequal, together equal to the third, fourth rather longer and narrower, fifth half again as long as the fourth; flagellum composed of 21 joints and small apical style. First maxillae (fig. 4) with outer lobe terminating in 8 denticulate spines, inner lobe terminally has 2 long setose spines and a small setule. Maxillipedes (fig. 5) short and wide, palp 3-jointed, basal plate short but prolonged on the inner margin anteriorly, epipodite broad and excavate on the posterior margin, distal inner lobe rounded terminally. Segments of the mesosome (fig. 7) 2-4 subequal, 5-7 somewhat shorter, pleural plates of first segment with anterior and posterior angles rounded, in 2-4 anterior angle is produced forward a little and posterior angle rounded, 5-7 truncate, coxal plates not present on the dorsal side. In the middorsal line of segments 2-4 is an arcuate depression towards the anterior margin (fig. 6). Thoracic appendages 2-4 small and directed forwards, 5-8 larger and directed backwards. Metasome (fig. 9) composed of a single segment with narrow lateral sutures indicating a further coalesced segment, terminal segment with straight lateral margins gradually narrowing posteriorly, posterior margin bluntly rounded with small median notch, dorsal surface very faintly keeled. Uropoda (fig. 10) with lateral margins almost straight, excepting at the hinge, rounded anteriorly and setose on the inner margin, on the outer posterior

margin is a small denticulate spine; endopodite with straight inner margin and cut away on the outer side.

Length 7.5 mm. Colour (in alcohol) varying from a slaty-grey to yellow with irregular sepia-coloured markings.

Habitat.—Kilakarai, Ramnad District. From coral reefs. 12-ii-1913. No. $\frac{9306.09}{10}$ (S. W. Kemp).

Type.—In the collection of the Indian Museum.

This species exhibits a slight relationship to *S. harfordi*, Benedict and *S. angulata*, Benedict, from both, however, it differs in a number of structural features. It agrees with the former species in the form of the cephalon and in having the small rounded median notch or indentation on the posterior margin of the metasome. In the form of the mesosomatic and metasomatic segments it is not unlike *S. angulata*.

The mouth parts are undescribed for most species of this genus. In *S. variegata* the outer lobe of the 1st maxilla terminates in eight denticulate spines. Harger¹ states that in *S. nodulosa* (Kröyer) the outer lobe is armed with stout, curved, denticulate spines, and shows nine of these in his figure.

Stebbing² in his description of *S. hirtipes* (Milne-Edw.), states that there are ten or eleven spines on the outer lobe in that species, some of which are denticulate, and that the inner lobe is narrow at both ends and has two, rather long, plumose setae.

The 2nd maxilla in *S. nodulosa*, as figured by Harger, is very distinct from anything I have seen in any other species of this genus.

The maxillipedes of *S. variegata* are short and wide, a character common to most members of the genus.

The 2nd, 3rd and 4th segments of the mesosome are subequal and longer than the remaining three. This feature is more apparent in the wider female than in the male. All the segments are convex and the pleural plates of 1-4 stand out slightly. There is no trace of the coxal plates on the dorsal side.

In *S. harfordi* the lateral margins of all of the pleural plates are straight and in *S. angulata* the margins of segments 1-4 are angulate, those of 5-7 only being straight. In *S. variegata* the condition of the lateral margins of segments 1-4 and 5-7 forms a link between the two above mentioned species. In the 1st segment the angles are rounded anteriorly and posteriorly and in 2, 3 and 4 the anterior angle is produced forward slightly and the posterior angle rounded; the remaining segments are truncate.

The metasome is rather wider than in *S. harfordi*, and more bluntly pointed than in *S. angulata*.

¹ Rept. U.S. Fish and F. Comms., 1878 (1880), p. 299, pl. vi, fig. 35c.

² South African Crust., pt. II, p. 61 (1902).